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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/782,937 | 02/23/2004 | Shinya Suzuki | 016886-0191 | 7674 |
| 22428 7590 05/22/2008 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007 | | | EXAMINER JONES, PRENELL P | |
| | | | ART UNIT 2619 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,937

Applicant(s)

SUZUKI ET AL.

Examiner

PRENELL P. JONES

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☒ Claim(s) 4, 5 and 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

Response to Arguments

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant has filed a terminal disclaimer which has been approved. Therefore, Examiner withdraws previous double patenting rejection. However, Examiner has performed another search, whereby additional art was discovered. The additional prior art is implemented in the rejection below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of

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35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1, 2 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnaud et al (US Pat 6,650,662) in view of Adachi et al (US Pat 6,411,808).

Regarding claim 1 and 6, Arnaud discloses a communication system that monitors the transmission of DTMF signals, whereby DTMF signals are transmitted through a packet switching network using voice transmission paths, and wherein the architecture includes an apparatus consisting of a DTMF generator, DTMF detector, compression and decompression provided, voice compression unit, DTMF coding (Abstract, Fig. 2 and 12, col. 4, line 3-21, col. 5, line 20 thru col. 6, line 63), and detecting DTMF signals from voice traffic (col. 13, line 29-33).

However, Arnaud fails to teach an information outputting unit for outputting the voice information generated by a voice coding unit and/or the DTMF information generated by the DTMF coding unit to a communication channel.

In a communication system that has an architecture consisting of portable terminal equipment, Adachi discloses an architecture that further include telephones that provide DTMF modulation and demodulation for converting DTMF signals provided at a voice codec unit, and wherein converted signals/voice information is outputted from various devices, such as speakers

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and microphones onto channels/communication channels Abstract, col. 3, line 5-65, col. 9, line 6-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement and information outputting unit for outputting the voice information generated by a voice coding unit and/or the DTMF information generated by the DTMF coding unit to a communication channel as taught by Adachi with the teachings of Arnaud for the purpose of communicating data information between devices.

Regarding claim 2, Arnaud further discloses DTMF detector which monitors the measured time/timing associated with the detection process (col. 6, line 63-67, col. 7, line 8-21, col. 8, line 30-55, col. 9, line 48-53, col. 13, line 7-35).

6. Claim 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnaud et al (US Pat 6,650,662) in view of Adachi et al (US Pat 6,411,808) as applied to claims 1 and 6 above, and further in view of Martin et al (US Pat 6,125,117).

Regarding claims 3, as indicated above, combined Arnaud and Adachi discloses a communication system that generates, detects and monitors the transmission of DTMF signals, whereby DTMF signals are transmitted through a packet switching network using voice transmission paths, and wherein the

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architecture includes an apparatus consisting of a DTMF generator, DTMF detector, compression and decompression provided, voice compression unit, DTMF coding, detecting DTMF signals from voice traffic, and an information outputting unit for outputting the voice information generated by a voice coding unit and/or the DTMF information generated by the DTMF coding unit to a communication channel, DTMF modulation and demodulation for converting DTMF signals provided at a voice codec unit, and voice information is outputted from various devices, such as speakers and microphones onto channels.

Although Arnaud teaches a packet switching unit, both Arnaud and Adachi fail to teach an ATM cell generating unit converting voice information or DTMF information into an ATM cell.

However, in a packet-circuit telephone network configuration, Martin discloses voice conversion to ATM cells/packet cells (col. 4, line 25-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement an ATM cell generating unit converting voice information or DTMF information into an ATM cell as taught by Martin with the combined teachings of Arnaud and Adachi for the purpose of further communicating coded voice in a packet switched environment with minimal latency.

Allowable Subject Matter

7. Claim 4, 5 and 7-9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. The following is a statement of reasons for the indication of allowable subject matter: The prior art fail to teach or suggest with respect to claim 4 and 8, a header portion indicating signal detecting time information indicating the time of detecting the DTMF signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2619
5/19/08

Prenell P. Jones
May 15, 2008